

What is claimed is:

1. A vibrating/tamping bull-float for agitating, leveling and smoothing a top surface of freshly poured concrete, integrating cement adhesives into the top surface, and pushing coarse aggregate down into the concrete while allowing cream to surface, comprising:

a stable float body with a horizontally extending bottom surface, attached to said pushing handle;

a vibrating float body with a horizontally extending bottom surface, pivotally attached to said stable float body at a primary axis of flexure extending along a primary longitudinal edge thereof and disposed parallel thereto;

an actuator mechanism made and arranged to vibrate said vibrating float body about the axis of flexure and thus tamp the cement; and

a pushing handle, attached to said stable float body; made and arranged to enable a user to move the bull-float back and forth on the concrete so as to agitate the top surface of the concrete in a tamping manner to level uneven concrete elevations of the top surface of the concrete, integrate cement adhesives into the top surface of the concrete, and cause cement cream to migrate to the top surface while the coarse aggregate is being pushed downward into the concrete.

2. The vibrating/ tamping bull-float as defined in claim 1 further comprising a bracket mounted on said stable float body made and arranged to receive attachment of said pushing handle.

3. The vibrating/tamping bull-float as defined in claim 2 wherein said bracket is made and arranged to swivel in a manner to provide a variable angle between said stable float body and said pushing handle and thus enable the user to move said float bodies back and forth on the concrete.

4. The vibrating/tamping bull-float as defined in claim 1 further comprising:

a second vibrating float body with a horizontally extending bottom surface, pivotally attached to said stable float body at a second axis of flexure extending along a second

longitudinal edge thereof disposed opposite the primary longitudinal edge and parallel thereto, and

said actuator mechanism being made and arranged to vibrate said second vibrating float body about the second axis of flexure, in addition to vibrating said primary vibrating float body so as to further enhance tamping performance of the bull-float in pushing the coarse aggregate down into the concrete while allowing the cream to surface.

5. The vibrating/tamping bull-float as defined in claim 1 wherein said actuator mechanism comprises:

- an electric motor having a drive shaft;
- a mounting bracket attaching said electric motor to said vibrating float body; and
- an eccentric mass affixed to the drive shaft of the motor, made and arranged to transmit a desired amplitude of vibration to said vibrating float body in response to rotation of said drive shaft.

6. The vibrating/tamping bull-float as defined in claim 1 wherein said actuator mechanism comprises:

- an electric motor;
- a mounting bracket attaching said electric motor to said stable float body;
- a shaft rotationally coupled to said electric motor, located above said vibrating float body, extending to two opposite end regions thereof; and
- at each end of said shaft, an eccentric mechanism made and arranged to vibrate said vibrating float body about the axis of flexure in response to rotation of said camshaft.

7. The vibrating/tamping bull-float as defined in claim 6 wherein said electric motor is an electric hand-drill motor.

8. The vibrating/tamping bull-float as defined in claim 5 further comprising an on-board rechargeable battery made and arranged to power said electric motor.

9. The vibrating/tamping bull-float as defined in claim 6 further comprising an on-board rechargeable battery made and arranged to power said electric motor.

10. The vibrating/tamping bull-float as defined in claim 1 wherein said pushing handle is configured in a segmented manner enabling assembly and deployment in any selected one of a plurality of predetermined different lengths.